

**Patent number:** JP11001393  
**Publication date:** 1999-01-06  
**Inventor:** PARK JEA-GUN (KR), CHO KYOO-CHUL (KR), LEE GON-SUB (KR)  
**Applicant:** SAM SUNG ELECTRONIC (KR)  
**Classification:**  
- **international:** C30B29/06, C30B15/20, H01L21/208  
- **european:**  
**Application number:** JP19980030682 19980213  
**Priority number(s):** KR19970004291 19970213, KR19970054899 19971024  
US19970063086P 19971024, US19970989591 19971212

DE19806045 (A1)  
CN1548590 (A)

[Report a data error here](#)

**PROBLEM TO BE SOLVED:** To provide a method for producing a microelectronic element and an apparatus therefor, in detail, a method for producing a silicon ingot and to obtain a silicon ingot and a wafer produced by the method.

<http://v3.espacenet.com/textdoc?DB=EPODOC&IDX=JP11001393&F=8>